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HUMAN RIGHTS AND SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENTS

Human rights and bioethics

Report of the Secretary-General

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Introduction

1. At its fifty-first session, the Commission on Human Rights, in its resolution 1995/82 of 8 March 1995, aware of the rapid development of the life sciences and the dangers that certain practices may pose to the integrity and dignity of the individual and seeking to ensure that scientific progress benefits individuals and develops in a manner respectful of fundamental human rights, invited Governments, the specialized agencies and other organizations of the United Nations system, in particular the United Nations Educational, Scientific and Cultural Organization and the World Health Organization, and other intergovernmental, particularly regional, organizations and non-governmental organizations to inform the Secretary-General of activities being carried out to ensure that the life sciences develop in a manner respectful of human rights and beneficial to humanity as a whole.

2. The Commission further invited States to inform the Secretary-General of legislative or other measures taken to this effect, including the possible establishment of national consultative bodies, with a view to promoting exchanges of experience between such institutions.

3. The Commission also requested the Secretary-General to prepare a report on the basis of these contributions for consideration by the Commission at its fifty-third session.

4. Pursuant to that resolution, the Secretary-General, by a communication dated 6 November 1995, invited States and interested intergovernmental and non-governmental organizations to submit their contributions to the Centre for Human Rights by 1 April 1996.

5. By 14 October 1996, replies had been received from the Governments of Austria, Chad, Germany, the Holy See, Jordan, Latvia, Malta, Mauritius, Tunisia and Uruguay.

6. A reply was also received from the United Nations Population Fund.

7. The Council for International Organizations of Medical Sciences (CIOMS) also sent a reply.

8. The Institute of Health Law of the University of Neuchâtel sent information about ethical control of life in Switzerland.

9. The present report is submitted to the Commission in pursuance of resolution 1995/82.

10. Attention is also drawn to the 1995 report on the subject (E/CN.4/1995/74). That report analysed measures taken by the United Nations in this field. In particular, a number of standards adopted by United Nations organs relating to human rights and bioethics were reproduced and described. The report also included additional replies from Governments, two United Nations specialized agencies (UNESCO and WHO), one intergovernmental (the Council of Europe) and two non-governmental organizations (CIOMS and the Commonwealth Medical Association) were included in that report. That material is not repeated in the present report. It is suggested, therefore, that readers who are interested in the information referred to consult the 1995 report.

I. LEGISLATIVE AND OTHER MEASURES TAKEN AT THE NATIONAL AND INTERNATIONAL LEVELS TO ENSURE THAT THE LIFE SCIENCES DEVELOP IN A MANNER RESPECTFUL OF HUMAN RIGHTS

A. General observations

11. The Commission on Human Rights, convinced of the need to develop a life sciences ethics at the national and international levels, in its resolution 1995/82 requested the Sub-Commission on Prevention of Discrimination and Protection of Minorities to consider ways of ensuring that the life sciences develop in a manner fully respectful of human rights and beneficial to humanity as a whole and to make recommendations to that effect.

12. At its forty-eighth session, in 1996 the Sub-Commission, recognizing that everyone has the right to enjoy the benefits of scientific progress and its applications and noting that at the World Conference on Human Rights it was acknowledged that certain advances, notably in the biomedical and life sciences as well as in information technology, might have potentially adverse consequences for the integrity, dignity and human rights of the individual, decided to entrust one of the members with the task of preparing, without financial implications, a working paper on the potentially adverse consequences of scientific progress and its applications for the integrity, dignity and human rights of the individual, and called on the international scientific community and the international organizations concerned to cooperate (decision 1996/110).

13. The Governments and organizations which sent replies to the communication from the Secretary-General emphasized the need to ensure that scientific progress benefits individuals and develops in a manner respectful of fundamental human rights.

14. The Government of Jordan considered that the prevailing image of man in any society reflected the structure of the culture, ideologies and systems of that society, and that it was essential to emphasize the relationship between the biological revolution and human values. It stressed the importance of positive interaction between the biological sciences and human rights in order to preclude the view that human values have no place in the natural sciences becoming prevalent.

15. The Government of Uruguay was of the view that the very rapid advances in biotechnology and medicine, almost always beneficial for human development, had not been accompanied by a uniform framework of ethical rules to regulate any adverse effects. At the national level, the matter had gradually assumed importance among the concerns of the various organs of State. In 1992, the Executive issued Decree No. 258/92 adopting, for the first time in Uruguay's legal system, a code of medical conduct. Article 2 of the Decree requires a physician to protect the human rights connected with the exercise of his profession and to refuse to use his skills to play a direct or indirect part in acts which represent a violation of those rights.

16. In Austria, a number of legislative and other measures have been carried out which, in the Government's view, ensure the beneficial development of research in the field of medicine and the life sciences as required by the Commission in resolution 1995/82.

17. The inquiries made by the competent Chadian services reveal that no appropriate legislation in this area has been enacted in Chad since independence.

18. Referring to paragraph 34 of the Secretary-General's most recent report (E/CN.4/1995/74), the Holy See stated that it would be appropriate to recall what had constituted the main argument of the Holy See's reply, namely, the inherent dignity of every human being from the first moment of conception, as the basis for the right to life and the principle that should inspire all research in the field of life sciences. The wording of the last sentence of paragraph 34 appears somewhat to distort the meaning of the Holy See's reply. The following wording would be preferable: "... biogenetic research and experimentation touched on vast areas of social life, and determined conditions for the exercise of certain economic and social rights".

19. The Council for International Organizations of Medical Sciences (CIOMS) stated that bioethics in the health sector should be guided by generally accepted principles, in particular by the principle that an adequate level of health care should be recognized as a universal and fundamental human right.

B. Legislative, administrative and other measures aimed at protecting human rights in the bioethical context

1. Medical treatment

20. In Latvia, Regulation of the Cabinet of Ministers No.261 on the Practice of the Physician, of 8 August 1995 states that the activities of the physician are to provide high quality outpatient medical care. Regulation No. 177 on Medical Science of 30 August 1994 regulates the social relations in medical science in order to provide qualified prevention, diagnosis, treatment and rehabilitation. The Law on Medical and Social Protection of Invalids of 29 September 1992 stipulates invalids' rights and duties of the State and municipalities concerning invalids in the Republic of Latvia. The Law regulates the diagnosing of invalidity as well as the medical and social help to be given to invalids. There is also a Code of Physicians' Ethics, which is not a legally binding but which serves as a guideline.

21. The Government of Mauritius pointed out that access to medical records by patients is bitterly opposed by doctors. It is argued that denying the patient access to his medical records prevents the development of a mature trusting relationship between doctor and patient.

22. The Tunisian Government stated that Tunisia's health policy attached special importance to the protection of the health of human beings in conditions guaranteeing respect for their dignity and rights. Article 1 of the Act of 29 July 1995 on the Organization of the Health Profession stated

that all persons were entitled to protection of their health in the best possible conditions. The articles of the Act, which is the reference instrument on the subject, contain rules guaranteeing respect for this right.

23. Subsequent legislation that was enacted confirms the Tunisian Government's approach and commitment to human rights, in particular the protection of the right to health. The Act of 27 July 1992 on Transmissible Diseases and the Act of 3 August 1992, on Mental Health and Conditions of Hospitalization for Mental Disorders, contain provisions guaranteeing respect for the individual and human dignity.

24. The Government of Uruguay stated that of particular relevance are the rights pertaining to treatment, supply of medicines and research for medical purposes. In addition to the existing legal provisions, the Medical Union of Uruguay, an association of the country's physicians, and more particularly the Union's Bioethics Commission, drafted a Code of Medical Ethics. It was adopted on 27 April 1995 by 80 per cent of those voting. The Code contains some particularly interesting provisions on abortion, sterilization, in vitro fertilization, eugenics, euthanasia, and the practice of torture or other cruel, inhuman or degrading treatment. As an illustration, the Government attached the description of the sentence handed down in 1994 by a court of second instance in connection with the conviction of a psychiatrist for applying, without consent, electric-shock treatment to a schizophrenic patient.

25. CIOMS reported that from 17 to 20 April 1994, it held its Twenty-eighth Conference on "Poverty, Vulnerability, the Value of Human Life and the Emergence of Bioethics" in Ixtapa, Mexico. The Conference adopted the Declaration of Ixtapa. In accordance with the Declaration, equity should be a basic principle of health policy, and such policy should be based on the Almaty principle of Health for All; health services should be effective, efficient, accessible, affordable, compassionate, and socially acceptable.

26. Principle 1.3 of the Declaration identifies problems encountered by women and gives recommendations to that effect. It reads as follows:

> "In certain countries and societies, women are rendered vulnerable or potentially vulnerable as a result of customs which may be prejudicial to their health and/or social well-being. Ethical analysis and appropriate remedial action can serve to enhance the status of women, and their personal health and well-being, wherever such a situation obtains."

27. Principle 1.4 includes the following provisions relating to improving the cost-effectiveness of resource allocation and health planning:

> "With the development of relatively new methods for measuring the burden of disease on human life that constitute potential tools for guiding decisions for improving the cost-effectiveness (efficiency) of resource allocation and health planning, it is essential that the further refinement of these methods be guided by the principles of equity and non-discrimination on such grounds as age, sex, ethnic

origin, personal status, etc., as well as efficiency, and that countries with an interest in applying these tools be provided with the resources for building capacities for undertaking these analyses in a manner consonant with national and local needs."

28. With respect to applying bioethical concepts to relevant aspects of human rights, principle 2.1 states that:

"important opportunities exist for applying bioethics concept in developing the content of human rights relating to health, health protection, and health care. Such rights can be clustered into three categories, viz.:

- rights to health care and to the benefits of scientific progress;

- rights relating to information, association, and freedom of action that could empower groups to protect and promote their health; and

- rights relating to self-determination and integrity of the person, including rights to liberty and security and the right to private life."

2. Medical research involving human beings and experiments on human subjects

29. In paragraphs 65 to 68 of the previous report of the Secretary-General on the subject, international standards relating to medical research and experiments were analysed. The Secretary-General has not received any further information concerning adoption of any new standards in the field or the development of old ones.

30. The Government of Germany recalled its previous contribution on this subject (E/CN.4/1995/74, paras. 72-73), and noted that additional, non-legislative measures had been taken to protect human rights in medical research. These include the professional regulations for physicians which, in Germany, have been reflected predominantly in the professional codes and special guidelines of the individual medical boards. According to the Standard Professional Code for German Physicians, which underlies all individual professional codes in this respect, all physicians, prior to conducting any clinical trial on a human person or epidemiological research using personal data, must seek the advice of a medical ethics commission on the medical and legal issues involved. The same applies to research on embryos or embryonic tissue, where such work is permitted at all, as following the prohibition of research on surplus embryos, as set forth in the Federal Protection of Embryos Act, the Standard Professional Code explicitly stipulates that both the production of human embryos for research purposes and research on human embryos (including totipotent cells) are prohibited. The text refers to the Declaration of the World Medical Association in this regard.

31. Some specific recommendations issued by the Federal Medical Board contain special instructions on the relevant duties of the medical profession, e.g. the preservation of medical confidentiality and data protection in

medical research. In respect of other areas where diagnostics and/or therapy and research are closely connected, the Federal Medical Society has adopted special standard guidelines e.g. on the use of fetal cells and tissues and on the transfer of genes into human soma cells.

32. With regard to medical research and experiments on human subjects, the Tunisian Government stated that the Medical Ethics Code, amended in 1993, contains several rules clearly stating the need to respect the moral and scientific principles justifying medical research on human beings. To that end, the Code states that "experiments on human beings cannot be carried out legally unless the importance of the goal pursued is in proportion to the risk incurred by the subject", and stressed the need "before beginning an experiment, carefully to evaluate the foreseeable risks and advantages for the subject". Hence doctors are, first and foremost, the protectors of human life.

33. Medical or scientific experiments with medicines to be used in the treatment of human beings are governed by the provisions of the Decree of 3 September 1990, which states that experiments must be conducted in conformity with the international health and human rights agreements duly ratified by Tunisia and the rules of medical ethics and ethics relating to experiments on human subjects. Experiments cannot be carried out on minors, mentally ill or mentally deficient persons or women who are pregnant or breast-feeding.

34. The Government of Uruguay stated, that under article 13 of Decree No. 258/92, medical personnel are required to refrain from any form of therapeutic experiments on human beings, including techniques for artificial recombination of genetic substances. The obligations imposed on medical personnel are in keeping with the non-exhaustive enumeration of the rights of patients set out in articles 30 to 44 of the same Decree.

35. The Institute of Health Law of the University of Neuchâtel reported that a number of ethical guidelines have been adopted during the last 20 years by the Swiss Academy of Medical Sciences (SAMS) founded in 1943. Even though the SAMS guidelines have no legal effects, they are highly regarded and followed by physicians and other scientists. In particular, several Swiss cantons have already adopted the guidelines on such issue as human experimentation.

3. Organ and tissue transplantation

36. The Government of Jordan summarizes the principal achievements of the biological revolution as follows:

> "(a) The transplantation of human organs, since modern science has succeeded in transplanting many organs such as kidneys, artificial kidneys, livers, lungs, pancreases, spleens, bone marrow, corneas and hearts into human bodies. Operations involving the transplantation of human organs are a tremendously important development in the safeguarding of human life. However, their effect on human health lies in the fact that, for those operations to succeed, specific drugs and

radiation treatments must be used in order to reduce the body's resistance to the transplanted organ and these drugs can lower the human body's immunity to all diseases.

"(b) Bioengineering and replacement organs for the human body. Through these it is possible to manufacture spare parts for human bodies, transplant tissue and use ultrasonic rays in surgery.

"(c) Transfusion of artificial blood into human bodies.

"(d) Artificial hearts.

"(e) Manipulation of genes and genetic engineering.

"There are other important achievements. However, we have mentioned the most important of them, which have undoubtedly helped to alleviate human suffering. Nevertheless, those achievements have had some adverse effects on human life and have given rise to some legal and ethical problems."

37. The Law of the Republic of Latvia on the Protection of a Dead Person's Body and Utilization of a Person's Tissues and Internal Organs in Medicine of 15 December 1992 provides protection of the dead person's body from undignified and unlawful treatment. The Law describes how tissues and organs of a dead or living person are to be utilized for scientific research or educational purposes, for transplantation, for producing medical preparations or prosthetic appliances.

38. Tunisia's Act of 25 March 1991 on the Removal and Transplanting of Human Organs guarantees the physical integrity of human subjects and prohibits any transplanting of reproductive organs carrying hereditary genes or the sale of human organs.

39. Uruguayan law requires the consent of the person concerned for the extraction of organs or tissue for transplants, under the terms of articles 1 and 2 of Act No. 14,005, of 17 August 1971.

40. According to information received from the Institute of Health Law of the University of Neuchâtel, several Swiss cantons have already incorporated relevant guidelines into their regulations on organ transplantation.

4. Family planning: artificial insemination and abortion

41. It may be recalled that the concept of the right to decide freely and responsibly on the number and spacing of children was declared a "human right", first in paragraph 16 of the Proclamation of Tehran (1968), followed by the 1969 Declaration on Social Progress and Development (arts. 4 and 22) and other declaratory instruments. It appears that this right has now become part of international treaty law through article 16 (1) (e) of the Convention on the Elimination of All Forms of Discrimination against Women. It seeks to

ensure that men and women enjoy "the same rights to decide freely and responsibly on the number and spacing of their children and to have access to the information, education and means to enable them to exercise these rights".

42. In that respect, the Government of Austria stated:

> "The identity and integrity of the human being is especially protected with regard to scientific progress by the Reproductive Medicine Act (Fortpflanzungsgesetz), Federal Law Gazette No. 275/1992. A central element in this respect is the regulation that genetic manipulation affecting germ line is prohibited altogether, as is research work with 'embryonic cells', which apparently includes totipotent cells and pre-embryos. Embryonic cells may only be used for medically assisted reproduction and may be examined and manipulated only insofar as this is necessary for procuring pregnancy. Embryonic cells as well as sperm and egg cells intended for medically assisted reproduction may only be conserved for a maximum of one year. These provisions, taken together, guarantee that there will be no shifts between the generations and that in the field of medically assisted reproduction a selection of the baby's sex such as by genome manipulation is prohibited. Any type of research work on and with 'embryonic cells' is also inadmissible. In order to create suitable conditions for the development of a child born as a result of medically assisted reproduction, the Act provides that this form of reproduction is applicable only to married couples and persons living together as husband and wife. Medically assisted reproduction with the semen of a third person is admissible; specific regulations under civil law guarantee that the husband or partner is the legal father of the child. A child aged 14 or over is, however, entitled to be informed about the identity of his/her father. Semen must not be donated against payment. Semen of a third person may only be used for medically assisted reproduction in these marriages or partnerships where the partners are living together as husband and wife. The donation of egg cells is prohibited, as is surrogate motherhood, which is ruled out by the fact that under the applicable provisions of civil law only the woman giving birth to the child is considered his/her mother."

43. The Holy See referred to the teachings of the Church on respect for emerging human life and the dignity of procreation, in particular as presented by the Congregation for the Doctrine of the Faith (E/CN.4/1995/74, para. 114). According to those teachings, the starting point for the moral assessment of artificial insemination techniques is consideration of the circumstances and their impact on the respect to which a human embryo is entitled. There is frequently a clear connection between in vitro fertilization and the deliberate elimination of human embryos: the underlying abortion mentality leads willy-nilly to man's domination over the life and death of his fellows, and can result in radical eugenics. In paragraph 144 of document E/CN.4/1995/74, the expression "official communications" might be confusing; the Holy See's reply used the term "statements".

44. The Government of Jordan considered that the biological revolution is giving rise to numerous legal and ethical problems, some of which are incompatible with human values. In its view, the most important of these problems are:

(a) With regard to human beings as unborn embryos, biological progress gives rise to a number of problems such as, in particular: Who resolves the problems arising from prenatal diagnosis? Are scientists the most appropriate team to take those decisions? When is abortion regarded as murder of the foetus? At what stage of the process does the foetus become a human person?

(b) The development of biology poses a legal problem in regard to artificial insemination, particularly if the donor of the sperm is not the husband. Does the husband have the right to object? Is the wife regarded as an adulteress? Who is the child's legitimate father? What is the situation in regard to inheritance?

(c) The main problem posed by the biological revolution possibly lies in the consequences of the process of human cloning, i.e. a human being's ability, by virtue of genetic manipulation, to biologically produce perfect replicas of himself. Through the process of cloning, we will be able to create from a nucleolus taken from a cell of an adult person a new being possessing the same hereditary characteristics as the person from whom the nucleolus was taken. This process of cloning has repercussions on society as a whole and, in particular, on social ethics, behaviour and values, since it helps to destroy the laws of nature, especially if the cloning is confined to persons with criminal tendencies or to persons of a particular type.

(d) There is a problem concerning reproduction in so far as the biological revolution has originated the so-called "new reproductive technology" which leads to control over the sex of unborn children and an ability to determine the structure of their intelligence, their features and aspects of their personality. This prompts us to say that, in the next century, human beings will be "multilineal" since reproductive biology could shatter all the traditional concepts of the family and its responsibilities. This raises a number of problems such as: What is the future of motherhood? What is the legal position regarding showrooms for the sale of embryos? What is the scientist's position regarding the biological concept of a "child of more than two parents"? The greatest potential problem arising from this is who would be the father and the mother of multilineal embryos? When a woman carries in her womb an embryo that has been fertilized in the womb of another woman, which of the two would be the mother and who would be the father?

(e) The endeavours that man is making in his major biological revolution in this century in order to change his personal and hereditary characteristics and his natural living conditions and transform the nature of his environment, his society and his psychological and biological life pose a problem in so far as he will find himself alienated from his human nature and distorted in his hereditary, political and social essence, since it is unreasonable to use genetic manipulation and genetic engineering to restructure a human being in the form of alien creatures or to arbitrarily determine the sex and destiny of another person. This would undermine all human values.

45. The United Nations Population Fund reported that from 8 to 10 March 1994, a Round Table on Ethics, Population, and Reproductive Health was held in New York. A Declaration on Ethical Propositions was adopted at this forum. In accordance with the Declaration, "reproductive health" is defined as "a condition in which the reproductive process is accomplished in a state of complete physical, mental and social well-being and is not merely the absence of disease or disorders of the reproductive process". This implies that "people have the ability to reproduce, to regulate their fertility, and to practice and enjoy sexual relationships". It also implies that "women can go safely through pregnancy and childbirth, that fertility regulation can be achieved without health hazards, and that people are safe in having sex".

46. In the view of the participants of the Round Table, this definition challenges the criteria for success adopted in the past by family planning programmes, criteria that have emphasized contraceptive acceptance rather than personal well-being. The definition moves beyond the biomedical model, which focuses on disease rather than the human being. According to this more expansive concept, people are the essence of reproductive health, the subjects rather than the objects. This change in focus provides an ethical justification for redesigning programmes and policies to reflect the fact that family planning deals with social as well as personal concerns.

47. Participants also considered that in fulfilling their obligations, Governments must recognize and protect three kinds of rights essential for the promotion of reproductive health:

(a) Rights to health care and information regarding health;

(b) Rights relating to liberty and security of the person;

(c) Rights relating to women's status and equality in society.

48. As it is so critical for personal well-being and human dignity, reproductive health should be regarded as an important social good, one that Governments, peoples and the international community have a special responsibility to realize by making the necessary investments. Neither reproductive health nor the broader concept of health in which it is embedded should be treated merely as a commodity. Leaving the provision of reproductive health services to market forces will mean that not everyone may have access to reproductive health.

49. According to principle II of the Declaration, the conditions necessary for achieving justice in reproductive health include the following:

(a) All people should be granted equal status in society with regard to reproductive decisions, irrespective of distinctions such as sex, race, class, wealth, ethnicity, religion, marital status, sexual orientation or age;

(b) Information relating to reproductive health and the availability of services must flow freely and be widely disseminated, and adequate general education must be provided for all members of society;

(c) Civil, political, economic, social and cultural rights must be effectively protected.

50. Principle III states that respect for persons requires that women not be treated as a means of reaching a goal of optimal population. Respect for persons requires a view of human beings as individuals whose well-being should be promoted. The principle of respect for persons provides a foundation on which reproductive rights are based. Among these are the right to make a voluntary, informed choice of a family planning method, the right to make the moral choice to undertake or terminate pregnancy, the right to confidentiality in the relationship with a health provider, and the right of women not to be harmed or mutilated, even when such practices are carried out as part of traditional rituals. Sterilizations performed without the knowledge or consent of the individual, contraceptive insertions or implants performed when a woman's capacity to make an informed choice may be impaired, and the practice of making partner's authorization a condition of sterilization or contraception are all violations of reproductive rights.

51. Informed reproductive choice implies responsibility for the choice made. Individuals should be presumed to have the capacity for making responsible choices. However, the individual cannot exercise that responsibility without a corresponding responsibility on the part of the service provider. Professional responsibility entails making appropriate reproductive health recommendations and not injecting bias into those recommendations, offering all readily available family planning methods, including those that are user-controlled, and not discriminating against women. Governments must also exercise responsibility by taking steps to ensure the existence of conditions conducive to making responsible reproductive choices.

52. In Switzerland, draft federal legislation on medically-assisted procreation, establishing a national ethics commission (Act on Human Medicine), states that:

> "Medically-assisted procreation is likely to undermine exalted values. Protection of the dignity, life and health of the embryo requires establishment of restrictions, in particular on the freedom to conduct research. Penalties are consequently laid down for the improper production of embryos and their development outside a woman's body, the genetic manipulation of germ-line cells (interference with the cell's make-up, thereby affecting future generations), cloning chimera or hybrid creation. The prohibition of cloning includes the removal of a totipotent cell from an embryo for diagnostic purposes, as well as the removal of a totipotent cell from an embryo conceived in vitro for diagnostic purposes.

5. Developments in biotechnology

53. In the view of the Government of Jordan, biological knowledge constantly leads to changes in man's awareness of his own nature. The trend in biology must be restricted by values, ethics and legislation and must be linked to humanitarianism. There must be a positive interaction between the achievements of the biological revolution and human rights, since interaction between those achievements and human values is the cornerstone of civilization. The importance of this interlinkage lies in the fact that present-day science is preoccupied with the shift from nature to biology,

which is a multifaceted science that is mainly concerned with human beings. It is contemporary biology that transformed the general concept of atoms from things that make nature act into things that make human beings act.

54. As to the relationship between the achievements of the biological revolution and the laws governing society and human rights, the Government of Jordan stated:

> "It is evident that biology constitutes a science that significantly modifies our understanding of human nature. Consequently, it is possible to identify the following three fields in which biology and law are clearly in mutual confrontation:
>
> (a) Population planning;
>
> (b) Genetic medicine;
>
> (c) Genetic engineering.
>
> Although the sciences of biology and law seem far apart and unrelated, being regarded as two distinct cultures, in actual fact the concerns of law are closely interlinked with those of biology, particularly after the tremendous achievements made by biological science in the modification, removal and replacement of human genes and the positive or negative improvement of offspring. Biology studies the sciences and laws of life, whereas law governs the activities and protects the lives of human beings. The law is frequently based on purely biological facts and considerations and the biological revolution, in turn, poses new questions for the law ... Even international law takes biology into consideration when it prohibits the use of certain types of weapons of war and destruction. When biology is combined with medicine, the role of law is to distinguish between the practice of medicine and engagement in biological experiments, placing restrictions and controls on the latter. To this end, every State must take the requisite legislative measures to ensure that the law intervenes by placing restrictions and controls on the biological sciences so that these restrictions and controls can help to curb scientific progress that has an adverse effect on human values and creates legal and ethical problems. In other words, progress and developments in the biological sciences must be in the interests of human beings and human life and not vice versa."

C. Machinery for effective promotion of ethical standards

55. The methods that have been adopted or proposed for the promotion and protection of human rights on the national level and relating to the issues dealt with in the present report were analysed to a great extent in the previous report (E/CN.4/1995/74, paras. 124-147). Those methods included legislation, administrative regulations and licensing of devices, official guidelines, special governmental machinery, codes of ethics, science policies, economic policies, safety inspection services and safety testing of new equipment. The Secretary-General has received some additional information and comments on a number of these issues.

56. The Government of Austria reported that the Hospitals Act and the Drugs Act provided for the establishment of ethics commissions. Under their provisions the involvement of ethics commissions is required by law in order to conduct clinical examinations in human beings as well as clinical examinations of medical products and to apply new medical methods in hospitals. Furthermore, the Hospitals Act specifies the fundamental rights of patients. With regard to the deliberate release and introduction of genetically engineered organisms and the use of genome analysis and gene therapy for the treatment of human beings, and as a result of a federal act regulating the handling of genetically engineered organisms, i.e. the so-called Gene Technology Act (Gentechnikgesetz), a gene technology commission and a permanent scientific committee for genome analysis and gene therapy have been established. The committee's task is to review individual applications and to provide assistance in the preparation of pertinent legislative measures.

57. In Chad, doctors and other practitioners conform to the Medical Ethics Code and the Public Health Code in their work. The recently-established Chadian Physicians' Association is making every effort to fill the gap left by legislation in this area.

58. The Government of Germany pointed out that since 1994, the Federal Government has had legislative power in the field of human genetics and gene therapy that is exercised concurrently by the Federal and Länder governments (however, no specific federal regulations have been adopted to date. Furthermore, the Working Group of the Federation and the Länder on Somatic Gene Therapy has not yet terminated its work). Coordination on the national level is taken care of by the Working Group on Ethics Commissions in the Federal Republic of Germany which holds its meetings at the headquarters of the Federal Medical Board.

59. The institutions dealing with issues of bioethics in the Republic of Latvia are the Health Department of the Ministry of Welfare and the Central Commission of Physician Ethics of Latvian Physicians' Association.

60. In the information from the Government of Mauritius, the following is stated:

> "The medical profession of Mauritius is regulated by the Medical Council Act of 1988. The Act provides, inter alia, for the establishment of a council to exercise and maintain discipline in the practice of medicine and, more importantly, the publication of a code of practice on standards of professional conduct and medical ethics.
>
> "The Government has yet to develop a strategy and formulate policies to deal with the wide range of medical-moral issues. It is the concern of the Government that prior to the passing of legislation on National Bioethics a consultative committee should be set up within the framework of human rights to review medical moral issues and propose appropriate responses."

61. The Government of Malta reported the establishment of a Bioethics Consultative Committee to advise the Minister for Social Development on matters relating to bioethics. Several subcommittees are currently working on issues including: informed consent transplantation issues and reproductive technology. Other topics will be discussed in due course. The Faculty of Medicine of the University of Malta has its own Research Ethics Committee to deal with research applications within the Faculty, hospital, and other institutions if requested.

62. In Tunisia, in view of the progress made by the medical sciences and the evolution of ideas in a society in a state of flux, the Act on the Organization of the Health Profession provides for the establishment of a national medical ethics committee with a view to the protection of human rights. This committee, whose powers, membership and modalities were specified by the Decree of 19 September 1994, is required to give its views on biological medical and health problems affecting individuals, social groups or society as a whole. Among other things, the committee is endeavouring to lay down the main principles for reconciling technological progress in these fields with ethical and legal standards, human values, human rights and social, economic and cultural realities.

63. In Uruguay, the legislature has had a Standing Bioethics Committee since 1993. It is a parliamentary committee, consisting of representatives of the four major political parties. It has submitted to parliament several bills on matters connected with bioethics. For instance, mention could be made of the bill, still under consideration, to legalize abortion with the consent of the woman.

64. Chapter 4 of the Declaration of Ixtapa deals with the role of international organizations engaged in international health work. They are invited to pay due attention to bioethical concerns in the planning and implementation of their policies and programmes. Particular emphasis needs to be placed on the full involvement of all concerned, including scientific and lay organizations, in discussions on the ethical issues raised by the introduction of new health and biomedical technologies. These organizations could help, through international and regional meetings, to sensitize countries to pressing bioethical issues, notably those raised in the primary health care context, and to foster a North-South dialogue in this area, aimed at achieving broad universal consensus on the essential principles of contemporary bioethics and their implementation in the health and related sectors (principle 4.1). In recognition of its considerable experience in the field, CIOMS was invited to endeavour to monitor the impact of the International Dialogue on Health Policy, Ethics and Human Values on the emergence and sustainable development of bioethics, particularly in developing countries.

II. CONCLUSIONS AND RECOMMENDATIONS

65. In addition to conclusions and recommendations contained in the previous report of the Secretary-General (E/CN.4/1995/74, paras. 148-163), the following conclusions can be drawn on the basis of the replies that have been analysed.

66. It is difficult to form a full picture of the issues dealt with in this report on the basis of the replies considered above because some States described in detail relevant legislation, policy and measures in the field, while others only pointed out some of them. All information analysed and reproduced in this report, however, should be considered as a valuable addition to the more complete information and analysis contained in the previous report.

67. In view of the above, the fundamental questions of how far States and individuals benefit from advances in medicine and biology are only partly answered in the present document. On the other hand, both reports demonstrate that legislation re-enforcing certain ethical principles has been introduced by an increasing number of States which also have established relevant machinery for the implementation of legal rules and giving effect to ethical standards.

68. The Government of Jordan wishes to make the following comments and recommendations on the subject:

> "1. We believe that we all have an obligation to allow mankind to steer biology along a course conducive to the best interests of the human person, provided that this "hazardous" technology does not affect or endanger human rights and freedoms, and to strengthen mankind's ability to adapt to biological changes in such a way as to ensure that such changes do not disrupt the equilibrium needed for survival.
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> "2. We need a strong new strategy in order to attain a new level of ability to make the biological code of conduct more humane and considerate, since change is the very essence of life. However, capricious, unplanned and abrupt changes that threaten the laws of nature, human values and the laws of life are the enemy of human life.
>
> "3. The biological revolution should show due regard for the beliefs, religions and philosophies of peoples and nations concerning certain issues, particularly genetic engineering, genetic manipulation, determination of the sex and form of babies and artificial insemination by a person other than the husband. These are highly sensitive issues in some religions, since birth and death are matters of which only God has knowledge. Any form of sexual contact with a person other than the husband is also forbidden in some religions. Abortion and infanticide of deformed children are also forbidden among some peoples.
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> "4. There must be positive interaction between law and biology in regard to hereditary diseases and defects that affect the health of unborn children. This could be achieved by making it a legal requirement that future parents be examined before producing children and that persons wishing to marry also be examined in order to ascertain, as a condition for marriage, that they are not suffering from any sexually transmittable diseases.
>
> "5. We believe that there should be an international ban on the hazardous conduct of medical, and particularly biological, experiments on human beings as currently happens in some States where persons

sentenced to the death penalty are used as guinea pigs in genetic engineering experiments for purposes of biological warfare. A similar ban should also be imposed on drugs and pharmaceutical products that reduce the body's resistance and immunity to diseases, particularly in the case of drugs used in operations involving the transplantation of human organs.

"6. We also believe that a ban should be imposed on operations that threaten the human nature of persons, such as the transplantation of organs from mammals into the bodies of human beings. Operations to transform a human being through genetic manipulation should also be banned."

69. The Declaration on Ethical Propositions referred to above contains a number of proposals pertaining to ethics, population and reproductive health, which should not be seen in isolation from other social goods. The definition stated in proposition I and the governmental obligations identified throughout the Declaration require a reordering of the way Governments have dealt with population and reproductive health. The Declaration states that to address the issues ethically, Governments cannot compartmentalize their efforts but must devise strategies that are broadly integrated with social and economic development, improved education, and political and legal reform. Like other important social goods, reproductive health can only flourish in a climate of respect for human dignity and protection of fundamental human rights.